Long Term Planning and Estimating
In a Federal World
A Little About Me...

@brandonraines
A Little About Me...

@rick917  rick917@hotmail.com
Agenda

• History of Agile in the Government

• Executive Level Portfolio Management

• Artifacts to Plan and Estimate
  • Product
  • Detailed

• Estimation Methodology

• Tracking Progress
Agile in the Government...

• Agile is widely used across the Government...this agency
• Agile implementation differs across different business areas
  • Lean/Kanban
  • eXtreme Programming
  • Scrum
  • Hybrid
• This briefing provides a representative sample of Agile estimating and project management within the Government
• Still improving and adopting best practices
Mission and IT Alignment
Continuous Adaptive Planning
Assumptions

- Detailed requirements are not developed up front, therefore not estimated
- Scope at the Detailed level can and will change
- Scope at the Vision level is less likely to change, otherwise, a new effort
- Scope at the Goal level is less likely to change
- Estimate for the Product completed at the Vision and Goal level
- Dedicated team effort
- A Product Owner
  - dedicated
  - orders the features
  - determines release candidates
- Work in sprints
Product Vision

• How will mission be impacted as a result of this product?

• What will be the appreciable difference as a result of this investment?

• What problem is solved?

• Who is impacted?
Product Vision

For (target customer)
Who (statement of need)
The (product name) is a (product category)
That (key benefit, compelling reason to buy)
Unlike (primary competitive alternative)
Our product (statement of primary differentiation)

Geoffrey Moore – ‘Crossing the Chasm’
Product Vision Example

Performance Plus is the common performance appraisal system used by all employees to conduct goal setting, discuss progress throughout the year with their managers, and evaluate annual performance against objectives and performance competencies. It is the tool that allows employees to directly contribute to an ongoing record of their accomplishments, while ensuring that they connect individual expectations with mission priorities. All employees will use Performance Plus to complete their annual performance evaluations.
What is a Roadmap

- A planning and communications tool
- For Product Owners, Customers and the Delivery Team
- To develop delivery strategy
- Bridge the gap between year, multi-year, sprint and release planning
- Developed collaboratively with the Product Owner, other Stakeholders and the Delivery team
- Based upon existing/to-be business processes that solve a business problem
- Enumerates the Minimum Valuable Increment(s) for the mission
- A framework for deciding when plans should change
- Identifies the impact of potential changes on related products, releases, objectives
- Documents the plan
Release Planning

• Develop a Release Goal
• Identify Success/Acceptance Criteria
• Estimate Success Criteria to achieve release goal
• Example:

  **Record Employee Performance Goals**

  All employees with a current designation of GS-12 and below will be able to record biographical information about themselves. An employee can also declare performance goals and declare a mentor to help guide them through a performance period. These activities must be enabled by the beginning of the rating period which starts 1 June 2016. These activities must be available 24/7 and with the ability to allow all GS-12 employees to use these activities simultaneously.
What is Our Product Roadmap

Bio Data
- Employee, Rating official and HRO of GS-12 and below can create bio data
- Bio data can cycle through the workflow from open to closed

Appraisal Document (AD)
- Employee, Rating official and HRO can create an AD
- AD can go through the workflow from open to closed

Rebuttal, Special Performance Document
- Employee and HRO can initiate a Rebuttal on either an MFR or AD
- Rebuttal can go through the workflow from open to closed
- HRO can initiate a Special Appraisal Document through an abbreviated workflow

System Admin, Reading Room
- HRO can create a Reading Room
- Reading Room can be used by all Members
- System Configuration through GUI

Product Launch
- Released to all workforce
Tools Needed to Estimate Projects

• Vision
• High Level Goals mapped to Business Process (Roadmap)
• Success Criteria (Mission)
• Definition of Done (Technical)
• Sprint Length (Initial)
• A cross functional estimating team
• Estimating technique (Relative Estimating preferred)
• Agreement to prioritize and work highest value items first
• Agreement to Inspect & Adapt
When Will We Get There

4 Sprints 10/12/2015

Bio Data

- Employee, Rating official and HRO of GS-12 and below can create bio data
- Bio data can cycle through the workflow from open to closed

Appraisal Document (AD)

- Employee, Rating official and HRO can create an AD
- AD can go through the workflow from open to closed

Rebuttal, Special Performance Document

- Employee and HRO can initiate a Rebuttal on either an MFR or AD
- Rebuttal can go through the workflow from open to closed
- HRO can initiate a Special Appraisal Document through an abbreviated workflow

System Admin, Reading Room

- HRO can create a Reading Room
- Reading Room can be used by all Members
- System Configuration through GUI

Product Launch

- Released to all workforce

4 Sprints 6/31/2016

3 Sprints 8/12/2016

9/1/2016
Estimate Cost

Estimates are defined as:
Total SW Project = SW Development Labor + Other Labor + Non-Labor
Velocity Chart

Story Points per 2 Week Sprint

Sprint

1
2
3
4
5
6
## Tracking Progress

### Table

<table>
<thead>
<tr>
<th>Priority</th>
<th>Priority AKA</th>
<th># of Items</th>
<th>Total Points</th>
<th># of sprint to complete</th>
<th>Cost Estimate</th>
<th>Cumulative Total (High→Low)</th>
<th>Remaining Funding (Post Current Sprint)</th>
<th>Remaining Cost</th>
<th>Unfunded/Surplus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top</td>
<td>ex. &quot;Must Have&quot;</td>
<td>5</td>
<td>35</td>
<td>1.46</td>
<td>$364,583.33</td>
<td>$364,583.33</td>
<td>$947,916.67</td>
<td>$947,916.67</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>10</td>
<td>56</td>
<td>2.33</td>
<td>$583,333.33</td>
<td>$583,333.33</td>
<td>$1,531,250.00</td>
<td>$2,697,916.67</td>
<td>$2,697,916.67</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>25</td>
<td>56</td>
<td>2.33</td>
<td>$583,333.33</td>
<td>$583,333.33</td>
<td>$1,531,250.00</td>
<td>$2,697,916.67</td>
<td>$2,697,916.67</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>15</td>
<td>112</td>
<td>4.67</td>
<td>$1,166,666.67</td>
<td>$1,166,666.67</td>
<td>$2,697,916.67</td>
<td>$2,697,916.67</td>
<td>$2,697,916.67</td>
<td></td>
</tr>
<tr>
<td>Nice To Have</td>
<td>5</td>
<td>91</td>
<td>3.79</td>
<td>$947,916.67</td>
<td>$947,916.67</td>
<td>$2,697,916.67</td>
<td>$2,697,916.67</td>
<td>$2,697,916.67</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>60</td>
<td>350</td>
<td>14.58</td>
<td>$3,645,833.33</td>
<td></td>
<td></td>
<td>$900,000.00</td>
<td>$947,916.67</td>
<td>($47,916.67)</td>
</tr>
</tbody>
</table>

### Diagram

- **High Priority**
  - $947,916.67
  - $1,166,666.67
  - $583,333.33
  - $583,333.33
  - $364,583.33

- **Cost Estimate**
  - 'High'
  - 'Low'
  - 'Medium'
  - 'Nice To Have'

- '4 Sprints 10/13/2015'
- '5 Sprints 2/22/2016'
- '4 Sprints 6/13/2016'
- '3 Sprints 8/12/2016'
- 'Product Launch'
- 'Bio Data'
- 'Approval Document (AD)'
- 'Rebuttal, Special Performance Document'
- 'System Admin, Release Room'
- Released to all

- Released to AD
- Released to H/Q
- Released to H/Q
- Released to all

- Employees, Failing officer on LMD of G1 and below can create bio data
- Bio data can cycle through the workflow from open to closed
Inspect and Adapt

• Frequently inspecting the plan and adapting it at different levels ensures value is delivered
What’s Next on the Improvement Backlog

• Length of time to deliver value added customer releases
• Consistent inspection and adaption
• Consistent application of Agile methodology
Summary – Did We Get There?

• Don’t specify detailed requirements
• Scope at the Detailed level can and will change
• Estimate for the Product at the Vision and Goal level
• Have cross functional team estimate
• Engage the Mission -
• Adapt the plan through feedback